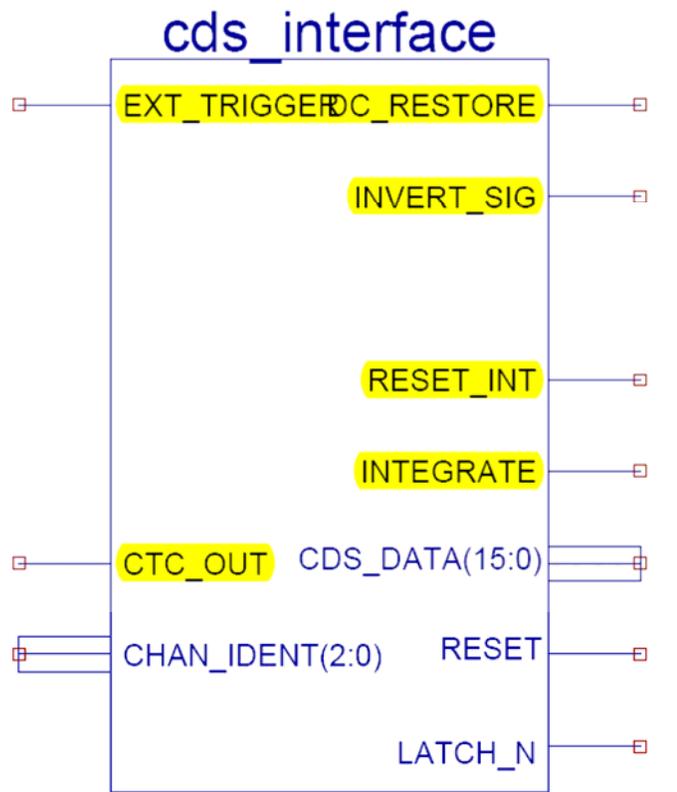

 -- DESCRIPTION : PROVIDES BASIC DECODING OF CDS CONTROL SIGNALS
 -- Control data to the CDS is latched from bits 5:0 of the CDS data when
 -- the LATCH_N signal goes low and the bit position of CDS data in bits 15:8
 -- corresponds to the decoded CHAN_IDENT value. This allows CDS data to be
 -- address to specific video channels or groups of channels by programming
 -- the CHAN_IDENT to different values. CHAN_IDENT value 7 is reserved. A
 -- Global CTC_OUT signal is generated when a write occurs to CHAN_IDENT 7
 -- irregardless of the actual video chann ident value.



```

CDS_DATA      : in  std_logic_vector(15 downto 0);
CHAN_IDENT    : in  std_logic_vector(2  downto 0);
CTC_OUT       : out std_logic;
DC_RESTORE    : out std_logic;
EXT_TRIGGER   : out std_logic;
INTEGRATE     : out std_logic;
INVERT_SIG    : out std_logic;
LATCH_N       : in  std_logic;
RESET         : in  std_logic;
RESET_INT     : out std_logic
  
```

```

signal CDS_latch  : std_logic_vector(5 downto 1);
signal CDS_le     : std_logic;
signal Chan_Sel   : std_logic_vector(6 downto 0);
signal Decode_ctc : std_logic;
signal Decode_trig : std_logic;
signal Global_cmd : std_logic;
signal Global_ctc : std_logic;
signal Global_trig : std_logic;
  
```

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-- CDS control signal outputs

```
CTC_OUT      <= Decode_ctc or Global_ctc;
INVERT_SIG   <= not CDS_latch(1);
INTEGRATE    <= not CDS_latch(3);
DC_RESTORE   <= not CDS_latch(4);
RESET_INT    <= not CDS_latch(5);
EXT_TRIGGER  <= Decode_trig or Global_trig;
```

-- CDS data latch enable generation

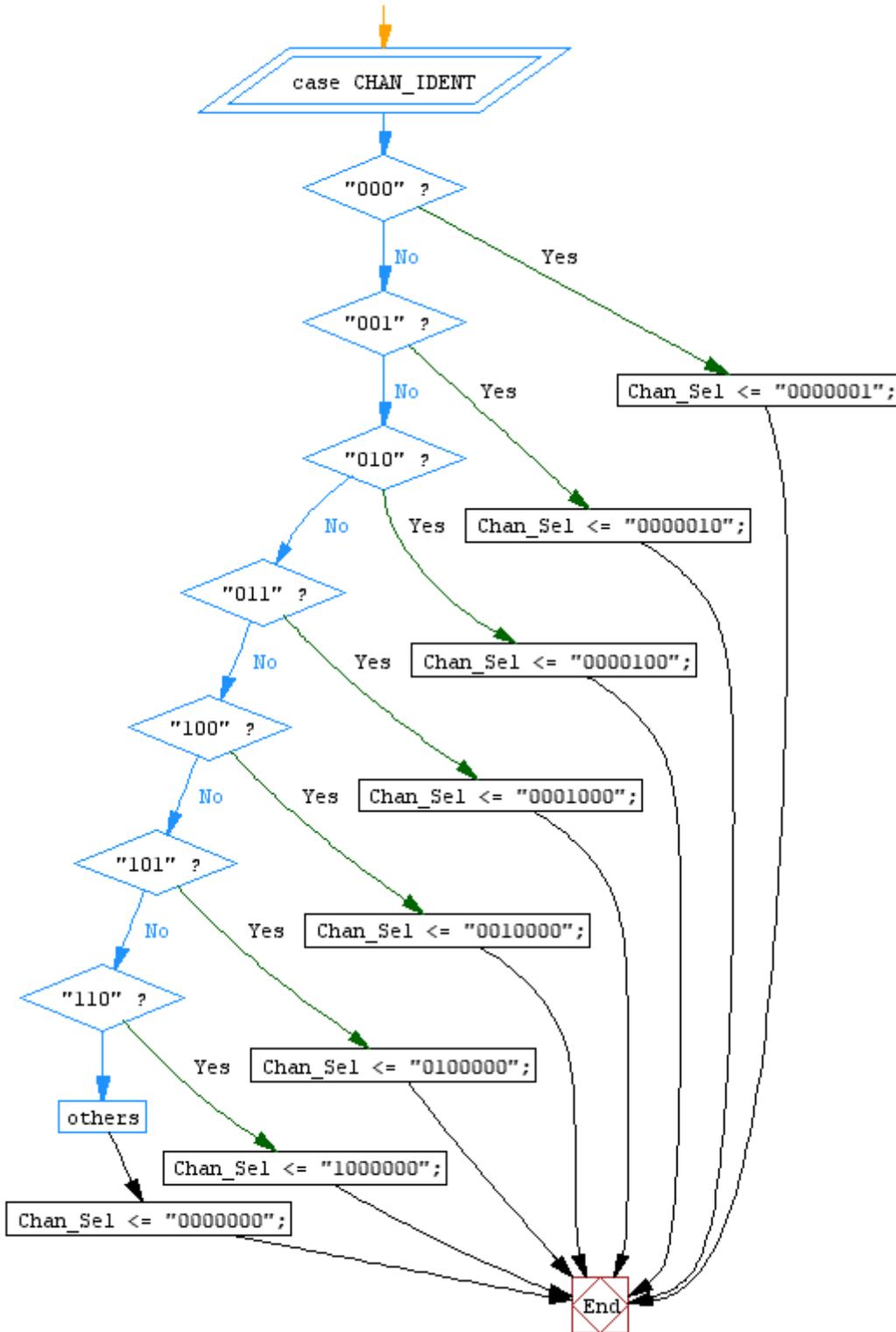
```
CDS_le <= (CDS_DATA(14) and Chan_Sel(6)) or
          (CDS_DATA(13) and Chan_Sel(5)) or
          (CDS_DATA(12) and Chan_Sel(4)) or
          (CDS_DATA(11) and Chan_Sel(3)) or
          (CDS_DATA(10) and Chan_Sel(2)) or
          ( CDS_DATA(9) and Chan_Sel(1)) or
          ( CDS_DATA(8) and Chan_Sel(0));

Global_cmd <= CDS_DATA(15) and not LATCH_N;

Global_ctc  <= CDS_DATA(0) and Global_cmd;
Decode_ctc  <= CDS_DATA(0) and CDS_le and not LATCH_N;
Global_trig <= CDS_DATA(6) and Global_cmd;
Decode_trig <= CDS_DATA(6) and CDS_le and not LATCH_N;
```

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ChanSelProc : process(CHAN_IDENT)



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CdsLatchProc: process (RESET, CDS_le, LATCH_N)

